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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,456	02/17/2004	John Quigley	RMC-6673	1400
26294	7590	03/14/2006	EXAMINER	
TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P. 1300 EAST NINTH STREET, SUITE 1700 CLEVEVLAND, OH 44114			ADDISU, SARA	
			ART UNIT	PAPER NUMBER
			3722	

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/780,456	Applicant(s) QUIGLEY, JOHN	
	Examiner Sara Addisu	Art Unit 3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/17/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4, 6, 8, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott (USP 1,967,374), in view of Horn et al. (USP 4,205,569).

Regarding claims 1 and 6, SCOTT teaches a method of cutting a tube into plurality of sections comprising feeding tube (55) along its longitudinal axis from the feeding zone (right hand portion of the tool) to the cutting zone (left hand portion of the tool) to be cut into smaller tubes segments ('374, figure 1). SCOTT also teaches a trimmed portion/scrap (86) disposed at the end of tube (55) being ruptured and removed (to a scrap receiving location) by spring (87) ('374, figure 8 and page 3, lines 50-65). Furthermore, SCOTT teaches the tube segments falling on conveyor belts to be ejected to a chute (second receiving location) (116) ('374, page 3, lines 130-133). Regarding claims 8 and 12, SCOTT teaches the tube being slipped onto the mandrel (8) (i.e. they have a telescopic relationship). SCOTT also teaches the mandrel (8) being constantly rotated and the tube is rotated with the mandrel (tube rotated at same speed as mandrel) during cutting of the tube ('374, Page 2, lines 11-24). Regarding claim 13,

Art Unit: 3722

SCOTT teaches tube carriage (42) being mounted for longitudinal movement via oscillation lever (22) ('374, page 2, lines 98-107). Regarding claim 4, SCOTT teaches the steps of pressing the end of the first portion of the tube against a stop surface (clamping member, 70) with the stop surface in a first position (clamped being down/closed) during cutting of the first portion of the tube into a first plurality of sections, moving the stop surface to a position (clamp opened) spaced from the first position, said step of cutting the second portion of the tube includes pressing an end of the second portion of the tube against the stop surface with the stop surface ('374, figure 7) (note: Meriam-Webster online dictionary defines "against as: in contact with).

However, SCOTT fails to teach the tube being cut in fraction/sequence: first portion of the tube being cut followed by its second portion. (Note: SCOTT teaches the entire length of a tube being cut into smaller segments at the same time mainly because the tube length is not too long).

HORN ET AL. teaches tube cutting apparatus capable of simultaneously cutting multiple segments from a continuous length of tubing ('569, figure 1 and Col. 1, lines 5-7). HORN ET AL. also teaches long tubing (T) having its leading end (first portion) being advanced longitudinally from the feeding section to the workstation and after the shearing operation, the second portion of the tubing (T) is advanced to be cut ('569, Col. 6, lines 18-49). The cut segments from tubing (T) are directed to a receiving location via chute-like tray (214). Regarding claim 2, cutting the leading end of tubing (T) obviously forms an end surface (leading end) on the second portion of the tube. Regarding claim

Art Unit: 3722

3, since tubing (T) is cut in segments (i.e. first portion then second), by default the force transmitted to the first portion comes from the second portion (tail end of the tube).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify SCOTT's invention such that the tube is cut in fraction/sequence (i.e. first portion of the tube being cut followed by its second portion), as taught by HORN ET AL., in the event that the tube being cut is very long. The length of the tubing would require the cutting operation to be performed in sequence.

2. Claims 5, 7, 9-11 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott (USP 1,967,374), in view of Horn et al. (USP 4,205,569) and further in view of Harris (USP 4,671,150).

The modified device of SCOTT teaches a method of cutting a tube into plurality of sections comprising feeding tube (55) along its longitudinal axis from the feeding zone (right hand portion of the tool) to the cutting zone (left hand portion of the tool), as set forth in the above rejection. Furthermore, regarding claim 10, SCOTT teaches tube (55) being forced against beveled end/ stop face (9) after being moved to the extreme rearward position ('374, figures 5 & 8 and page 2, lines 15-18 and 131-134).

However, the modified device of SCOTT fails to teach the tube being rotated while being fed. SCOTT also fails to teach feed rollers (that rotate about an axis that is skewed relative to the longitudinal axis of the tube).

Regarding claims 5, 11, 14 and 15, HARRIS teaches an apparatus and method for cutting a pipe into a multiplicity of small pieces wherein the pipe is fed by rotating the pipe about its longitudinal axis and simultaneously moving the pipe in a direction generally parallel to the longitudinal axis of the pipe, and wherein individual pieces are sequentially cut from an end of the pipe as it is being fed ('150, abstract). HARRIS also teaches feed rollers (10, 12 and 14) ('150, figure 1). Regarding claims 16 and 17, HARRIS teaches each roller being mounted in any convenient manner so as to be capable of free rotation about a rotational axis, and is skewed with respect to the longitudinal axis of pipe (16) to form an acute angle α ('150, figure 1 and Col. 2, lines 3-22). Furthermore, HARRIS teaches the skew angle at which the rollers are set is preselected, and is determined according to the desired distance of longitudinal pipe travel per revolution, the distance traveled being a function of the pipe diameter ('150, Col. 2, lines 23-26). Additionally, HARRIS teaches the longitudinal velocity of the pipe is a function of pipe diameter, the feed roller rotation rate and feed roller skew angle ('150, Col. 4, lines 23-25). Regarding claim 9, one can control/vary the velocity of the movement of the pipe in the longitudinal direction by constantly changing the skew angle (α) of the feed rollers since, as mentioned above the longitudinal velocity of the pipe is a function of pipe diameter, the feed roller rotation rate and feed roller skew

Art Unit: 3722

angle. Regarding claim 7, rotating the feed rollers (10,12, 14) reversely would result in the tube being pulled back into the feeding station.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to substitute the feeding assembly of SCOTT's invention with feed rollers, as taught by HARRIS, for the purpose of simplifying the tool thus cutting cost. This means there would be no need for the oscillating lever (22) and carriage (42) while being capable of advancing the tube longitudinally to the workstation. It would have also been obvious to one of ordinary skill in the art at the time of the invention was made to skew the feed rollers (in different reselected angles) as taught by HORN ET AL., for the purpose of serving to impart to the pipe simultaneous rotational and longitudinal movement in respective directions as well as control the longitudinal velocity of the pipe ('150, Col. 2, lines 19-21 and Col. 4, lines 23-25).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Addisu at (571) 272-6082. The examiner can normally be reached on 8:30 am - 5 PM.

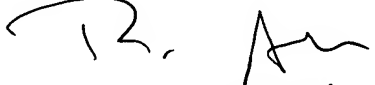
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3722

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SA
3/6/06


BOYER D. ASHLEY
SUPERVISORY PATENT EXAMINER